AUTUMN NEWS LETTER ☆ SEPTEMBER, 1961

ANSS Members Attend CEA Convention

Three past presidents of the Western Section of ANSS attended the annual meeting of the Conservation Education Association held at Missoula, Montana, Aug. 13-17. They were Arthur Nelson, Stanley B. Mulaik and Dorothea Mulaik. Other ANSS members who were in attendance were Adrian Fox, George Worley, Byron Ashbaugh, Matthew Brennan, and Martha Munzer.

It is worthy to note that George Worley who is director of the Pack Foundation Project at the University of New Mexico was elected president of the Conservation Education Association. Congratulations to George.

"She Cares – Do You?"

The Camp Fire Girls have published "Gift to the Nation" which is a report of the Golden Jubilee project which took two and a half years of devoted enthusiastic service – a means of saying "Thank you" to the Nation for its support over the past 50 years.

It is the report of how half a million girls have expressed their appreciation by making a census of the trees on 957,-347 acres. Over 2,000,000 trees were planted. Grounds of church, school, hospital, cemetery, and others were landscaped. Areas were set aside for natural areas and for wildlife sanctuaries. Anti-litter campaigns were stepped up as were many other activities, too numerous to mention.

The theme for this whole effort to beautify America was "She Cares – Do You?" No author or editor for this fine publication was given, though we know that our good friend Nan Harmon Mickel had a prominent part in promoting this work. Shirley Miller was a member of the advisory committee for the Camp Fire Girls.

Operation Outdoors

Orville L. Freeman, Secretary of Agriculture, announced that the Forest Service will spend $25 million over the next ten to fifteen years for wildlife habitat improvement in the national forests. This program is Part II of the Forest Service "Operation Outdoors." Part I which was launched in 1957 covered plans for recreational improvements such as campgrounds, picnic areas, and sanitary facilities. When it is noted that about 92 million visits were made to the national forests in 1960, it is obvious that increased facilities of all kinds were needed.

The pressure from the visiting public for help in interpreting the forests and its wildlife has prompted the FS to launch an educational interpretive program by providing skilled naturalists in some of the more heavily visited areas. Museums featuring the local plant and animal life in an interpretive setting are projected.

Youth Foundation Formed

John Ripley Forbes who prepared one of the finest Annual Banquet programs for the ANSS at its last meeting announces the establishment of a Natural Science for Youth Foundation with headquarters at 114 East 30 Street, New York City. Forbes has organized more than 30 youth museums and natural science centers and is president of this foundation.

Regional offices will be established in five centers covering the major sectors of America. Its national program is supported by individual contributions, memberships and foundation grants.

Denver Program Completed

Glidden Baldwin, after a world trip with his family, must have returned full of energy and inspiration judging from the excellent program he was able to prepare for the Denver meeting. Working under the handicap of few ANSS members in the Denver area, nevertheless he succeeded in having many national figures committed to the four-day program which should attract an extensive audience. The program will be printed in full in the November issue.

Among the major features will be joint meeting of all Science Teaching Societies at which time a Symposium on Molecular Biology will be featured. The Kodachrome Showing, a popular activity, is headed by John Wanamaker and should have a fine audience. Two field trips are scheduled. One will head westward, the other southward. Both will feature the geology and the plant and animal life.

CEA Explores Public Support

Thirty-six states were represented by 140 participants at the Conservation Education Association meeting held in Missouli, Montana, August 13-17. The theme, "Harnessing Public Support for the Use, Development, and Conservation of Natural Resources" was timely, and during the open sessions many fine points were presented. A summary of the proceedings is being prepared, and those interested in techniques for enrolling public support for conservation-nature study activities should write for this summary to Dr. Wilson Clark, Eastern Montana College, Billings, Montana.

A visit to the Smoke Jumpers Laboratory to see the extensive laboratories for studying forest fires, and to watch the smoke jumpers prepare their chutes, dress in their jumping outfits, and take off by plane for the immense Sleeping Child fire was a highlight of the conference program.

AMERICAN NATURE STUDY SOCIETY NEWS LETTER

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The National Science Teachers Association
The American Association for the Advancement of Science
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National Issues

Since the previous issue of the NEWS LETTER, a vote taken on the Wilderness Bill by the Senate was 78 in favor and 8 against. This is a remarkable majority and shows a recognition by the Senators of the great upsurge of public opinion regarding the need for wilderness guarantees. In January it is expected that the House will vote on the measure, and we feel that its members will be as well aware of the public desire to see wilderness preservation guarantees as the Senators were. Passage of the Wilderness Bill by the House should be by a large majority.

The explosive increase of tourism into the out-of-doors shows that more wilderness lands must be made available. Already the overcrowded National Parks, Monuments, as well as National and State Forest Camping Areas show a need for extensive expansion of facilities. Every type of facility from that of the miserable crowding into areas such as in Yellowstone National Park to those to be enjoyed by people who wish to find a bit of solitude away from a neighboring tent every twenty-five feet.

Your representative in Congress would be happy to have your views on the issue of wilderness. You might write to the Chairman of the House Committee on Interior and Insular Affairs, Wayne N. Aspenwall, House Office Building, Washington 25, D. C.

* * *

Many teachers have suddenly "discovered" science. To many of them, satellites and science are synonymous. It is true that we are in a space age. Two decades ago we entered the atomic age, and two decades before that we entered the air age. In the rather short history of man it is not far back to the bronze age. What age can we look forward to in the next decades until 2000?

The school and community programs must prepare children to understand and to interpret their natural world. Facts alone are not enough, though through facts we build a foundation so that as the child matures he will have increased skill in adjusting to his environment, and in skills of manipulating his environment for his present and future welfare.

From the earliest school years, a well planned nature program can foster effective ways of thinking about the natural physical and biological world. This can not be done in a vacuum. Children must be challenged to interpret the meaning of facts and phenomenon of the things about them out of which will develop a consciousness of underlying principles. As children mature, their sphere of understanding will grow and the concept of the world as a satllite, and of manmade satellites will unfold. There are too many entering junior highschool who do not know where north is when they are away from the classroom but who know "all about satellites."

Water from the Ocean?

The problem of sufficient good water for our rapidly increasing population often brings glib responses that science will now lick the problem of desalting ocean water. It hasn't been that simple to date, and for those who want a fair resume of current progress might consult "Fresh Water from The Sea," Resources for the Future, September, 1961. Address Resources for the Future, 1775 Massachusetts Ave., Washington 6, D. C.

This article reports desalinization of water at about $1.00 per thousand gallons. Most city water in America costs less than a fourth of that. On this basis, an acre foot for irrigation would cost over $300. Only for rare crops is it profitable to water for up to $10 an acre foot. There is still a long way to go.

Another Look At Resources and Education

One of the most significant publications which will be of interest to ANSS members is "Children, Classrooms and Conservation" by Dr. George L. Fersh, Director, Conservation and Resource-Use Education Project of the Joint Council on Economic Education. Undoubtedly many ANSS members have seen this, but for those who have not, copies might still be available from Joint Council on Economic Education, 2 West 46th St., New York 36, N. Y.

This twenty-four page pamphlet is full of valuable viewpoints relative to teaching conservation in our schools. Some ideas he presents, prompts one to review our viewpoint toward resources and their relation to our political subdivisions. Room is available only for the following:

"*Interstate competition* is another major development in the United States which has tremendous implications for resource-use. We find that more and more states are becoming provincial. If you were to pick up any major paper you would see ads and inducements for industry to move to one state or another. You will realize that advertisers are not thinking in terms of the United States but in terms of their own local areas. This will have great implications for resource-use because, in many cases, we will find states specializing in things they shouldn't be specializing in. They are becoming isolationists in order to build a home economy that they think will be strong. But they are often engaged in what we call marginal efforts in the economic field. They are using resources that shouldn't be used. They are doing this simply to stay ahead of, or independent of, other states. Similar inducements are offered to personnel. The movement of personnel is a very important one, particularly in the resources field, as one state offers higher salaries to attract people from another state. The result is that those states where personnel in resources are most needed, are unable to compete with the inducements of more able states. We all know that this doesn't help already-depressed states. We all know, too, that just the existence of one depressed state affects the whole country for, in one way or another, the entire nation is dependent upon the resources of each individual state."

Another article in this issue from RFF is entitled "How clean is my valley." It would bear reading. also.

Nature Study TIPS

A Service of the American Nature Study Society

NEWS LETTER INSERT SEPTEMBER, 1961

Field Trips—Success or Failure

JOHN F. WANAMAKER

Too often teachers of natural history, whether at the primary, secondary, or college level hesitate to take their classes on field trips. Four reasons for this seem apparent: the trips do not seem worthy of the time spent; the group is too large to work with in the field; there just doesn't seem to be enough material of interest in the vicinity of the classroom; and transportation to more distant points is not available.

Local newspapers and a leading weekly magazine described a nature field trip in downtown Boston during the meetings of the American Association for the Advancement of Science a few years ago just after Christmas. The leader, Dr. E. Laurence Palmer, Professor Emeritus of Nature Education at Cornell University and author of the *Fieldbook of Natural History,* told an American Nature Study Society audience that a field trip could be successful in almost any circumstance if the leader were willing to give it careful preparation. To prove his point he took his audience of more than 60 from the hotel conference room to the street outside the building. The group, primarily teachers, gathered around him as though to say "Just try to show us any natural history here."

With a twinkle in his eye the leader asked, "Who can find the first plant?" Immediately the group began to scatter to the amazement of passersby – but Dr. Palmer soon called them back. "Here, look at this building stone." Close examination revealed a dark crustose lichen covering the surface. As the group came up to examine this tiny plant association, the leader explained symbiosis and the role crustose lichens play in soil formation. Of course starlings were observed, and a debate began when some of the group noted the scavenger role played by these noisy city birds. An Ailanthus tree, luxuriously growing through the cracks in a bricked alley, was the next stop. By now the trip numbered well over 100 persons who listened to the discussion on the "tree of heaven" which most everyone knew by name, but few by sight. At each stop Dr. Palmer quickly entered the center of the group, and spoke from there in an evenly modulated voice. To hear, the "students" had to be quiet, and they were.

A parking lot, once the basement of a building, was next. There among the cracks, in the dead of winter but green from the heat of the city, was a variety of plant and yes, animal life. A number of insects were found on the plants; the story of the aphid created much interest – even the parking attendants joined the group and ventured to ask a question or two. Here I left Dr. Palmer, standing on the front bumper of a car talking to an enthusiastic and attentive group about the natural history of a city parking lot. A successful field trip? – Yes, by any standard!

Throughout our national and many of our state parks, Park naturalists demonstrate an ability to explain the beauty, grandeur, and order of nature to large and varied audiences. To be sure, park naturalists have advantages since they have ample material to work with, they know the area well, and there is always a willing audience. Yet the teacher can profit by some of their techniques.

Mr. Arthur Stupka, Chief Naturalist in the Smoky Mountain National Park – the most widely visited of all of our national parks – is widely acclaimed as an outstanding field trip leader. I've taken groups of teachers and camp counsellors to him to show the group how a successful field trip leader operates. There is a casual way about this man, but observe him carefully. While the outstanding authority of the flora and fauna of the Southern Appalachians, he does not take a group out in an area unfamiliar to him until he has first covered the ground alone. On a trip with him it is obvious that he knows the trail; he stops to explain points of interest only in areas where all the group can gather to hear and see. His voice reaches everyone, no matter the size, as he appears to talk directly to those on the outer fringe rather than to those closest to him. Watch how skillfully he diverts the constant questioner and refrains from conversing with the same individuals as the group moves along. Listen to the questions he asks, getting the people to look ahead and beside the trail for the things he's talking about. There's no place for idle chatter – one might miss a bird call he just described. Note how he builds up points of interest before he reaches them. Timing, too, is important – there is no running to keep up, or uneasiness because the group is moving too slowly.

We all aren't professors of natural history or park naturalists with years of experience, but if a teacher is desirous, there are techniques and skills he can develop and put into practice which will do much to make field trips an integral and successful part of his teaching program.

Suggestions for the Teacher

A. The Teacher's Role In Preparation

1. Are you sufficiently interested in the subject? The student of any age quickly notes the leader's lack of interest or enters into the enthusiasm expressed by the teacher!
2. Have you carefully gone over the area ahead of time, picking out and perhaps checking up on points of interest?
3. Have you carefully selected material of real interest – or have you the necessary information to make it interesting?
4. Can you teach the material in the time available?
5. Are rest room facilities available on longer trips – and shelters in case of rain?
6. Have you provided for alternate work in case of severe weather conditions?

B. Preparing the Students

1. Develop interest in the trip through class discussion, perhaps pictures.
2. Plan projects as outcomes of the trip.
3. Suggest proper dress, including shoes.
4. Appoint students for any collecting to be done; designate persons to set up displays afterwards.
5. Appoint a secretary to keep notes or have the individuals take their own notes. (Be sure the group is not so involved in note-taking they don't really get to fully observe the topic being discussed.)

C. The Subject

1. Nature walks are often the most successful for those teachers without some special background in a subject. Let the students discover things of interest—insects, field mouse runways, plants growing in strange places. Make your comments or questions of such interest that the students will want to remember names and so will ask for them. Don't be afraid to say "I don't know," but always be quick to add "Let's look it up when we get back" or at least discuss ways whereby the student can find answers. Mention conservation wherever possible: sheet and gully erosion, water pollution, misuse of land, are common occurrences within walking distances of most schools.

2. Bird walks are usually the most popular. Try to get the class out on an early morning walk when bird song is at its best (Playing the records of bird songs now available from many sources is a successful way to introduce bird study.)

3. Visit a nearby woods or park to see the first spring flowers. The flowers of elms, maples, oaks, are all lovely and of interest, so don't pass them by. Flowering bulbs in city parks offer wonderful opportunities to observe flower structure, as well as an introduction to genetical studies. Avoid taking specimens unless the plants are really abundant and the students are shown the right way to collect. Bringing single specimens back to the laboratory for all the class to review is a far better conservation practice.

4. Seasonal walks may be more difficult at first for the average teacher. Cover the same area spring, fall, and winter noting changes and making comparisons. Keep records of ground moisture, air and ground temperature for comparison and note the effect of these differences upon the plant and animal life. Once established well planned seasonal walks can become a basis for class discussions throughout the year.

Dr. E. Laurence Palmer shows a nature study class at Cornell University how easy it is to teach soil erosion by using schoolyard resources.

Fox Reads Paper

Adrian C. Fox, read a very stirring paper entitled "Challenge to Education in Soil and Water Conservation – As I See It" to the 16th Annual Meeting of the Soil Conservation Society of America on August 1. Mr. Fox commented that there are basically two groups demanding attention from educational sources to give a better understanding of our dependence upon the land for survival in the realm of business, industry, professions, trades, the physical health of people and our national security. These two groups are those attending school and those who are not.

This paper centered most attention upon the 36 million children and nearly a million and a half teachers in elementary and secondary schools. It pointed out that such organizations as the Soil Conservation Society of America, the Conservation Education Association, the American Nature Study Society and the National Association of Biology Teachers are providing leadership for stimulating action to promote conservation education.

In this paper he commented that the term "conservation education" is used freely and broadly to identify almost any kind of outdoor activity with the remotest connection with natural resources. While these programs in themselves are no doubt good, "However, putting all related activities under the title conservation education has served to confuse the very people who should be pushing ahead on a clearly defined set of objectives under that label."

This paper reviews briefly the report of a study made by the Conservation Foundation under the direction of Martha Munzer of 128 curriculums. This report in part stated "A percentage analysis showed that nearly half of the 128 publications examined devote less than one half of one percent to conservation per se that is, material, listed as 'Conservation' or 'Natural Resources' and other synonyms. One cannot escape the conclusion that conservation education, being everybody's business, may turn out to be nobody's. The behavior of the great American public in regard to its natural resources leads us to the conclusion that little conservation *learning* has taken place."

This paper by Mr. Fox shows that there is a desperate need for a greatly expanded conservation program in our schools at all levels. We may find that while in some areas of our natural resources there is no turning back. Further delay in initiating a forceful program may find ourselves with too little to salvage. The ANSS has an opportunity now which will not present itself again to formulate and promote a program for broadening understanding of our natural world which is the resource base.

Members Receive Awards

"Things to Do in Science and Conservation" was the winner of the Conservation Education Award as an outstanding contribution in the communication arts. This award is presented each year to the writers of publications believed to have contributed most to conservation education.

Byron Ashbaugh and Muriel Beuschlein (ANSS members) are the authors. Byron is now with the National Audubon Society as director of Nature Centers for Young America and Muriel is a professor at the Chicago Teachers College and president-elect of the National Association of Biology Teachers.

* * *

It is a pleasure to learn that Dorothea D. Mulaik has been awarded a certificate of merit from the National Wildlife Federation for her work in promoting National Wildlife Week in Utah. Dorothea is past president of the Western Section of ANSS, General Chairman of Workshops and Editor for the Utah Nature Study Society and First Vice-president of ANSS.

At the biennial Western meeting of National Audubon Society she won an award of an autographed copy of Roger Tory Peterson's Field Guide to Western Birds for her slogan for promotion of the 1962 California Audubon Camp near Donner Pass in the High Sierras in California. The slogan was "You'll Never Know Until You Go."

* * *

The Garden Club of America made the presentation of the award of the Frances K. Hutchinson Medal for his "tireless crusade for the preservation of our natural recources" to Richard H. Pough of Pelham, N. Y.

Doings of Members

Catherine Dunlop was elected president of the Western Section of the American Nature Study Society to succeed Dr. Elmo Stevenson. The next annual meeting of the Western Section will be held at Corvallis, Oregon, next August when the American Association for the Advancement of Science meets jointly with the American Institute of Biological Societies.

* * *

Rex Conyers who made such a fine record of his teaching while in Missouri is now on the staff of the Florida Audubon Society of which C. Russell Mason is the Executive Director. The expansion of the work of this society now includes 30 sanctuaries of which the last two are having buildings erected on them to serve as nature centers. Rex Conyers has been assigned to direct the Conservation Education program for the Society.

* * *

C. M. Goethe, one of the Honorary Life Members of ANSS, is continuing a busy life working for improved understanding of the natural environment by America's youth. He sees men in high authority making many errors regarding our resource use because of "shall we say, they lack the education in boyhood of a home museum." He is a strong advocate of family group activity in nature interests.

Mr. Goethe's "widow's mites" to ANSS have been most welcome.

* * *

Anna Pechanic who has been a faithful ANSS member, visited the Great Smoky area in Western North Carolina where her brother is working with the Forest Service. Anna received her Ph. D. last June having completed a comprehensive study of mosses of the Northwest. On her way home from the east she did some intensive moss collecting in isolated canyons in the northern Rockies.

* * *

Miss Edith Curry of La Mesa, Calif., is currently vice-president of the San Diego Audubon Society, Inc. Edith has served as president of the Western Section of ANSS, as a naturalist at the Audubon Camp in the High Sierras and was one of the leaders of a workshop held by the Audubon Society and the Camping Association.

* * *

The two pictures in the March issue of the News Letter were taken by Charles Mohr during the December meeting in New York City. Your editor was remiss in failing to give proper credit to the source of these two photographs.

* * *

The Nature Study Tips in the June issue was written by Dr. Dwight Sollberger who is head of the science department of Indiana State College in Indiana, Penna. Dwight has been director of ANSS and was an editor of the News Letter for several years, and changed it from a mimeographed to its present printed form.

* * *

The Tips in the present issue of this News Letter was prepared by John W. Wanamaker, a director of ANSS.

Good Reading

The store of literature for those who want added help in their nature study-conservation programs is growing rapidly in the present decade. Even the relatively small portion which reaches your editor cannot be read completely. A few of these selected at random are reviewed here.

Millicent E. Selsam has prepared several excellent books during 1961. "See Along the Shore" is a story of the things one may find along the ocean shores, the effect of tides and their cause, and the adaptations of plants and animals to the coastal environment.

Another book, "Around the World with Darwin" is one which will prove a classic for upper elementary and Junior high schools for years to come. The writer shows a clear insight into the fundamental nature of the work done by Darwin. The account of the trip of the Beagle and of the plant and animal life Darwin encountered are selected with a view to give the readers an understanding of the evolutionary process. These two books are published by Harper Brothers, 49 East 33rd Street, New York 16, N. Y. They show the same excellence her earlier books show such as "Play with Plants," "Play with Vines," "Seeds and More Seeds," and the "Plants We Eat."

Western members particularly will be interested in "Mammals of the Southwest Mountains and Mesas" by George Olin, published by the Southwestern Monuments Association, Globe, Arizona. Olin is a naturalist with the National Park Service and writes about animals from a long experience with them in their natural habitat. Paper $2.00, cloth $3.25.

"Man's curiosity about his environment – his need to form a concept of his position in the universe – has motivated observation and interpretation. As he gains knowledge about the physical and biological units of the universe, man forms concepts about them and discovers concepts to have common elements."

The preceding quotation is the first paragraph of an article "The Use of Ecology in Teaching Science to Children" written by Dr. Beth Schultz for "Science Education," March 1961, Vol. 45, No. 2, pp 96-113. This scholarly article has much of the flavor of The Nature Study Idea of Liberty Hyde Bailey, but brought up to date with a broadened concept of the interrelatedness of plants and animals, and these with their physical environment. Space prevents an adequate treatment. However the full text will be found in Science Education which most college libraries subscribe to.

"Common Native Animals" is a 1961 publication by M. F. Vessell and E. J. Harrington from San Jose State College. This excellent work answers many questions of what to do with such "pets" as the many things a child brings to the home or classroom. "What to feed it?" "How to house it?" "What is it?" and the mouse, lizard, frog, spider or other of many other questions are answered.

Its chapters deal with animals in general; habitats of animals; field trips to various habitats; mammals of various kinds; birds, reptiles, amphibians, and fishes; and the invertebrates.

An appendix deals with helps in preserving animals, developing mealworm cultures, inexpensive terraria and other items. "Common Native Animals." Chandler Pub. Co., San Francisco, 175 pg., paper $2.95.

A Study Guide for Teaching Conservation with a sub-title "Get in Harmony with the Land" was prepared as a workshop project during the summer of 1957 at the Biological Station of the Montana State University, Missoula under the directorship of Dr. James W. Gebhart. This Guide provides direction for carrying on a program relating to natural resources at each of the grades 1-8. Multilithed I – X11 and 1 – 233. Limited copies available. No price indicated.

A Challenge

Fresh off the press is "Our Renewable Wild Lands – a Challenge" by Dr. Walter P. Cottam, Professor of Botany, University of Utah. This excellent resume while pin-pointing problems in Utah, is basic for all of America. It treats man's impact on natural resources, particularly through abusive grazing practices which radically changed the character of the vegetative cover of the land.

There are six parts. Part I presents the over-all status of conservation in Utah at the close of the first century since settlement. Part II is a critical analysis of some present controversies regarding the extent of resource deterioration. Part III and IV are natural sequences to Part II because they are designed to acquaint the reader with some detailed methods used by ecologists for arriving at conclusions regarding the degrees of wild land deterioration on two specific historic areas in Utah. Part V considers the greatest of all resource problems – the relation of plant cover to the hydrologic cycle. Part VI presents the need for research in these crucial matters of wild land management.

Dr. Cottam has a limited number of copies available to ANSS members who will write for them. Other copies are available at the University Press, University of Utah, Salt Lake City 12, Utah.

Application for Annual Membership

Membership in the American Nature Study Society includes a membership card, a quarterly NEWSLETTER and the magazines you select. Please note you can get your membership for less than $3.00, even free, by selecting the proper group.

Group	Cost	Publications Received (All include ANSS Newsletter and Nature Study Tips)
1.	$3.00	Membership only
2.	4.00	Membership with Cornell Science Leaflet (4 issues)
3.	5.50	Membership with Canadian Audubon Magazine (5 issues)
4.	6.50	Membership with Cornell Science Leaflet and Canadian Audubon
5.	7.00	Membership with Natural History
6.	8.00	Membership with Cornell Science Leaflet and Natural History
7.	9.50	Membership with Canadian Audubon and Natural History
8.	10.00	Membership with Canadian Nature, Natural History, Cornell Science Leaflet
F.		For Family Membership, add $1.50 to the cost of group selected. Circle group desired, send application with name and address and check to:

Mrs. Mildred Rulison, Treasurer
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